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that the trading spirit and skill in navigation which had been then imparted by the Northmen to the inhabitants of Ireland of the Celtic race, had exercised a much greater, and perhaps more beneficial, influence on the subsequent destinies of this country than had been usually supposed.

Mr. Smith further intimated an intention of submitting to the Academy, on some future occasion, the results of his investigation of the Norse geography of the Faroe and Shetland islands, and other islands on the western coast of Scotland and the Isle of Man.

The Rev. Joseph A. Galbraith communicated an abstract of the "Barometrical Observations made at the Magnetical Observatory, Dublin, before and during the Storm of the 7th and 8th February, 1861."

MONDAY, FEBRUARY 25, 1861.

Rev. George Salmon, D. D., Vice-President, in the Chair.

The Rev. J. A. Galbraith laid before the Academy the following

TABLES AND DIAGRAMS RELATIVE TO THE RAIN-FALL AS OBSERVED IN THE MAGNETIC OBSERVATORY OF TRINITY COLLEGE.

Table I. gives the annual and monthly rain-falls for the last ten years, 1851–1860.

Table II. gives the monthly rain-falls of the ten years (1841–1850) as compared with those of the last ten years (1851–1860).

The numbers for the first ten years are taken from Dr. Lloyd's account of the Meteorology of Ireland, vol. xxii. of the Transactions of the Academy.

From this Table it appears that the mean rain-fall at Dublin for twenty years (1841–1860) = 29·02 inches.

Table III. gives the distribution of the rain-fall, according to the seasons, for ten years (1851–1860), from which the following mean values are obtained:—

Spring (March, April, May), ...	6·33
Summer (June, July, August), ...	7·81
Autumn (September, October, November), .	7·73
Winter (December, January, February), . .	6·76

In computing these mean values, the rain-falls for January and February, 1861, as taken from the day-book of the Observatory, were used as follows:—

January, ...	2·18
February, ...	3·67

It may be observed that the month of February, 1861, has been the wettest February for the last twenty-one years, the rain-fall being more than double the average amount.

Table IV. gives the number of dry days in each month for the last ten years (1851–1860). In this Table a day is counted dry if the rainfall is less than a hundredth of an inch.

Average number of dry days in the year = 191·6
Average number of wet days in the year = 173·4

During the last ten years there have been only twenty-three days on which the rain-fall has exceeded one inch, and only thirty-three days on which it has exceeded seven-tenths of an inch. The heaviest rain-fall, amounting to 1·78 inch, occurred on the 1st of April, 1853. The two wettest consecutive days were 27th and 28th of September, 1856, on which 2·72 inches of rain fell; 1·31 inches on the 27th; and 1·41 inches on the 28th.

Plate I. represents the rain-fall for twenty years, from 1841–1860; the ordinates which represent the depths of rain are drawn to a scale of one-tenth.

Plate II. represents Kirwan's observations on the rain-fall in Dublin, as observed at his house in Cavendish-row, from 1792–1808. These observations are to be found in volumes v., vi., vii., viii., and x. of the Transactions of the Academy. There seems to be no record of the year 1793.

The rain-gauge of the Magnetic Observatory is circular, having an orifice of 12 inches, and is placed on the flat roof of the Observatory, which is 17 feet above the level of the ground.

TABLE I.

Rain-fall for ten years, 1851–1860.

Years.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1851	5·28	0·49	2·38	1·77	1·31	2·71	3·48	2·01	1·81	3·27	1·01	0·88	26·40
1852	3·20	2·72	0·61	1·28	2·35	7·09	1·96	3·27	2·69	3·46	7·43	4·10	40·16
1853	2·75	2·16	1·63	3·81	1·04	1·91	2·73	1·93	2·39	4·32	1·69	2·60	28·96
1854	3·83	0·75	0·67	0·40	2·43	3·93	2·29	1·24	0·91	1·64	3·15	2·60	23·84
1855	1·24	2·83	1·50	0·59	1·74	1·92	3·68	2·74	1·34	4·83	1·41	1·65	25·47
1856	2·64	1·93	0·77	1·58	5·49	2·40	1·41	2·60	3·88	2·03	0·65	2·55	27·93
1857	2·66	1·30	3·13	3·96	1·48	3·28	1·65	1·20	1·57	2·65	1·79	0·44	25·11
1858	1·04	1·03	1·14	5·08	1·64	1·37	3·34	1·66	3·02	3·31	1·38	3·06	27·07
1859	1·43	1·00	2·59	3·99	0·68	1·24	1·35	1·92	3·01	1·62	3·24	3·21	25·28
1860	4·15	0·84	2·57	2·62	3·12	4·59	2·43	4·75	2·65	2·27	2·90	3·17	36·06
Mean	2·82	1·50	1·70	2·51	2·13	3·04	2·43	2·33	2·33	2·94	2·46	2·43	28·63

TABLE II.

Monthly rain-falls from 1841–1850, *compared with those from* 1851–1860.

Mean Value.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1841–1850	2·64	1·86	1·90	2·58	2·11	2·16	2·34	2·74	2·33	3·35	3·03	2·38	29·42
1851–1860	2·82	1·50	1·70	2·51	2·13	3·04	2·43	2·33	2·33	2·94	2·46	2·43	28·62
1841–1860	2·73	1·68	1·80	2·54	2·12	2·60	2·39	2·54	2·32	3·15	2·75	2·40	29·02

Mean rain-fall for twenty years (1841-1860) = 29·02 inches.

TABLE III.

Distribution of rain-fall according to the seasons.

Years.	Spring.	Summer.	Autumn.	Winter.
1851	5·46	8·19	6·09	6·80
1852	4·24	12·32	13·58	9·01
1853	6·48	6·57	8·40	7·18
1854	3·50	7·47	5·70	6·67
1855	3·83	8·34	7·58	6·22
1856	7·84	6·41	6·56	6·51
1857	8·57	6·13	6·01	2·51
1858	7·86	6·37	7·71	5·49
1859	7·26	4·51	7·87	8·20
1860	8·31	11·76	7·82	9·02
Mean,	6·33	7·81	7·73	6·76

TABLE IV.

Number of dry days in each month, with their average for ten years.

[N. B.—A day is counted dry if the rain-fall is less than the hundredth of an inch.]

Years.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Dry days.	Wet days.
1851	8	19	10	17	18	16	16	9	24	16	17	21	191	174
1852	13	13	26	25	18	8	21	14	16	15	11	8	188	177
1853	12	12	15	23	20	17	13	23	19	11	15	14	184	181
1854	7	11	23	23	16	15	16	16	21	14	11	11	184	181
1855	16	9	18	22	16	14	16	14	20	13	21	16	195	170
1856	7	13	25	16	15	15	17	16	11	20	25	18	198	167
1857	14	16	14	7	22	19	15	19	15	16	21	20	198	167
1858	21	20	20	14	17	21	16	20	16	16	21	11	213	152
1859	20	13	13	14	26	22	21	16	11	17	13	18	204	161
1860	7	18	9	16	12	8	20	9	18	14	16	14	161	204
Aver. no. of dry days.	12·5	14·4	17·3	16·7	18·0	15·5	17·1	15·6	17·1	15·2	17·1	15·1	191·6	
Aver. no. of wet days.	18·5	13·6	13·7	13·3	13·0	14·5	13·9	15·4	12·9	15·8	12·9	15·9		173·4

Mr. Frith and Professor Hennessy expressed a hope that Professor Galbraith would communicate the observations of temperature and barometric pressure made within the same period.

Mr. Yeates stated that his observations of rain-fall coincided very exactly with those of Professor Galbraith. In connexion with the fact of the minimum of monthly rain-fall occurring in February, he remarked that the annual minimum of temperature occurred, with remarkable regularity, in the middle of the same month.

The Rev. Samuel Haughton read a paper " On the Evaporation and Fall of Rain at St. Helena, Dublin, and Enniskillen, during the year 1860."

Dr. Sidney, Mr. Frith, and Mr. James Haughton made some observations on that part of Mr. Haughton's paper which referred to the water supply of the city of Dublin.

Professor Hennessy expressed a doubt as to the perfect accuracy of the method employed by Mr. Haughton to estimate the difference between rain-fall and evaporation.

Mr. Haughton briefly replied.

The REV. SAMUEL HAUGHTON, F. R. S., Fellow of Trinity College, Dublin, read a paper—

ON THE STORM OF THE 9TH OF FEBRUARY, 1861.

ON the 11th instant I expressed to the Academy my opinion, that the disastrous storm of the 9th instant was not a Cyclone, and that its occurrence could not therefore be predicted from barometrical observations made in a single locality. Further inquiry into the circumstances of this storm shows that this opinion was correct, and that it constitutes an admirable example of Dove's second kind of storm, outside the limits of the Trade winds (Ueber das Gesetz der Stürme, p. 48.) In this class of storms, there is a direct opposition between the S. W., or equatorial current, and the N. E., or Polar current, of air; there is generally a succession of non-cyclonic gales, N. E. and S. W.; and when the S. W. wind gives place to the N. E., there is a rising barometer and minimum temperature corresponding to the time of the storm. The following facts place the peculiar and non-cyclonic character of this storm beyond all doubt.

Dublin.—In this city a wave of atmospheric pressure occurred, of 8 days, 4 hours' duration, the two crests of the wave being—

1st crest, Feb. $1^d\ 22^h$; Barom. = 30·70 in.
2nd crest, Feb., $10^d\ 2^h$; Barom. = 30·48 in.

And the hollow of the wave being—

Feb. $5^d\ 2^h$; Barom. = 29·00 in.

The gale or storm occurred of maximum violence,—

Feb. $9^d\ 22^h$, velocity 24 miles per hour.